

Claims

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1. A method for operating a filer including the steps of;
receiving at a first location a request from a user for an object;
processing said request at a second location, wherein said step of
processing includes at least one of the following: (1) searching for one or more
recognizable patterns of data within said object, (2) compressing said object, and
(3) encrypting said object.
responding to said request, wherein said step of responding includes
delivery of a response to said user.
 2. The method of claim 1, wherein said request is in an electronic form.
 3. The method of claim 1, wherein said object is a file.
 4. The method of claim 3, wherein said step of processing said request
further includes the steps of;
creating an access path from said filer to a processing cluster;
processing said file in said processing cluster; and
generating a scan report wherein, said scan report is responsive to
said processing of said file in said processing cluster.

1 5. The method of claim 4, wherein said step of creating an access path
2 includes sending the ID and path of said file from said filer to said processing cluster.

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4 6. The method of claim 5, wherein said step of sending is accomplished
5 using non-uniform memory access.

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7 7. The method of claim 5, wherein said step of sending is accomplished
8 using a communications network.

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10 8. The method of claim 5, wherein said step of sending is accomplished
11 using a direct connection.

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13 9. The method of claim 4, wherein said step of processing of said file is
14 performed by said processing cluster in a round robin fashion for subsequent files re-
15 ceived.

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17 10. The method of claim 4, wherein said step of processing of said file is
18 accomplished in parts by more than one device in said processing cluster.

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20 11. The method of claim 4, wherein all files stored on said filer are
21 scanned in a logical continuous manner.

1 12. The method of claim 4, wherein said scan report contains a set of
2 status data relating to said processing of said file.

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4 13. The method of claim 12, wherein said status data includes at least
5 one data element identifying the presence or non-presence of a virus in said file.

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7 14. The method of claim 13, wherein said report is transferred to said
8 filer.

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10 15. The method of claim 14, wherein said report is stored in a first data-
11 base.

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13 16. The method of claim 15, wherein the necessity for subsequent scan-
14 ning of said file is a function of determining whether said database contains said report
15 relating to said file and whether said file has changed since last accessed.

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17 17. The method of claim 16, wherein the necessity for subsequent scan-
18 ning of said file is a function of determining whether additional virus identification data
19 files have been added to said processing cluster.

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21 18. The method of claim 1, wherein said delivery of a response is said
22 file.

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2 19. The method of claim 1, wherein said delivery of a response includes
3 notification to said user that said file is unavailable.

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5 20. The method of claim 1, wherein said step of responding to said re-
6 quest includes sending said user a copy of said scan report.

7
8 21. An apparatus for operating a filer including,
9 means for receiving at a first location a request from a user for an
10 object;

11 means for processing said request at a second location, wherein said
12 means for processing includes at least one of the following: (1) means for search-
13 ing for one or more recognizable patterns of data within said object, (2) means for
14 compressing said object, and (3) means for encrypting said object.

15 means for responding to said request, wherein said means for re-
16 sponding includes delivery of a response to said user.

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18 22. The apparatus of claim 21, wherein said object is a file.

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20 23. The apparatus of claim 22, wherein said means for processing said
21 request further includes

1 means for creating an access path from said filer to a processing
2 cluster;
3 means for processing said file in said processing cluster; and
4 means for generating a scan report wherein, said scan report is re-
5 sponsive to said processing of said file in said processing cluster.
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7 24. The apparatus of claim 23, wherein said means for creating an access
8 path includes means for sending the ID and path of said file from said filer to said proc-
9 essing cluster.
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11 25. The apparatus of claim 24, wherein said means for sending is ac-
12 complished using non-uniform memory access.
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14 26. The apparatus of claim 24, wherein said means for sending is ac-
15 complished using a communications network.
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17 27. The apparatus of claim 24, wherein said means for sending is ac-
18 complished using a direct connection.
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20 28. The apparatus of claim 23, wherein said means for processing of said
21 file is performed by said processing cluster in a round robin fashion for subsequent files
22 received.

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2 29. The apparatus of claim 23, wherein said means for processing of said
3 file is performed on atomic units of said file by more than one device in said processing
4 cluster.

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6 30. The apparatus of claim 23, wherein all files stored on said filer are
7 scanned in a logical continuous manner.

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9 31. The apparatus of claim 23, wherein said scan report contains a set of
10 status data relating to said processing of said file.

11
12 32. The apparatus of claim 31, wherein said status data includes at least
13 one data element identifying the presence or non-presence of a virus in said file.

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15 33. The apparatus of claim 31, wherein said report is transferred to said
16 filer.

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18 34. The apparatus of claim 33, wherein said report is stored in a first
19 database.
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1 35. The apparatus of claim 34, wherein the necessity for subsequent
2 scanning of said file is a function of determining whether said database contains said re-
3 port relating to said file and whether said file has changed since last accessed.

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5 36. The apparatus of claim 35, wherein the necessity for subsequent
6 scanning of said file is a function of determining whether additional virus identification
7 data files have been added to said processing cluster.

8
9 37. The apparatus of claim 21, wherein said delivery of a response is de-
10 livery of said file.

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12 38. The apparatus of claim 21, wherein said delivery of a response in-
13 cludes delivery of notification to said user that said file is unavailable.

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15 39. The apparatus of claim 21, wherein said means for responding to
16 said request includes sending said user some portion of said scan report.